

ABSTRACT OF THE DISCLOSURE

Layered proton exchange membrane and method for preparing the same. The layered proton exchange membrane comprises an organic/inorganic composite membrane and at least one proton exchange membrane wherein the organic/inorganic composite membrane comprises inorganic proton conductors and an organic base polymer. The method comprises mixing inorganic proton conductors with an organic base polymer to form an organic/inorganic composite membrane, and combining the organic/inorganic composite membrane with at least one proton exchange membrane.